

conducting UHV desorption of native oxide on W under a pressure of 10^{-9} torr at 750°C for 5 minutes;

forming a monolayer of W-Si silicide at 625°C for 1.5 minutes using SiH₄ such that a bare W surface reacts with Si to form a monolayer of W-Si; and

performing nitridation of W-Si at 750°C for 30 minutes with NH₃ and reacting active NH₂ with W-Si to form W-Si-N.

12. (Amended) The method of claim 1, wherein a multilayer stack is formed on said substrate, wherein said substrate with said multilayer stack is bonded to a silicon substrate and annealed to strengthen the bond across the bonding interface.

16. (Amended) The method of claim 15, wherein annealing conditions including any of a ramp-up rate, a ramp-down rate, a stabilization temperature, and a stabilization temperature time are optimized to minimize stress induced by thermal mismatch of different materials of said metal back-gate, said substrate, said passivation layer and said intermediate gluing layer.

17. (Amended) The method of claim 1, wherein said intermediate gluing layer comprises a Si-based intermediate layer.

Please add the following new claims:

36. The method of claim 1, wherein a low temperature oxide (LTO) is deposited on the metal back-gate.

37. The method of claim 18, wherein a low temperature oxide (LTO) is deposited on the metal back-gate.

38. The method of claim 19, wherein a low temperature oxide (LTO) is deposited on the refractory metal.--